U.S. ENVIRONMENTAL PROTECTION AGENCY

SUPERFUND PROPOSED PLAN FACT SHEET

ESCAMBIA TREATING COMPANY SITE

OPERABLE UNIT 1 - SOILS

Pensacola, Escambia County, Florida — August 2005

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) invites comment on a proposed cleanup plan for part of the Escambia Treating Company ***Superfund*** Site. This Proposed Plan and subsequent ***Record of Decision*** (ROD) explain options EPA evaluated for Operable Unit 1 (OU1) and provide the rationale for EPA's preferred alternative. OU1 consists of source soils on the facility property, including the current soil stockpile, as well as off-site soil on residential and commercial properties in several areas adjacent to the site. EPA, in consultation with the Florida Department of Environmental Protection (FDEP), will select a remedy for OU1 only after public comments have been considered.

This Proposed Plan is part of EPA's requirements under Section 117(a) of the Comprehensive Environmental Response, Compensation and Liability Act ***(CERCLA*** or ***Superfund***). The fact sheet summarizes information found in greater detail in the ***Remedial Investigation*** (RI)/***Feasibility Study*** (FS) and other documents in the ***Administrative Record***. The Record and an ***Information Repository*** for the Escambia Treating Company Site are at the:

West Florida Regional Library
200 W. Gregory Street
Pensacola, Florida 32501
850-435-1763

Italicicized terms are defined on page 25.

TECHNICAL ASSISTANCE GRANTS

EPA awarded a Technical Assistance Grant (TAG) to a Pensacola community group, Citizens Against Toxic Exposure (CATE) in order to help the community increase its understanding and provide feedback to EPA on actions at the Escambia Treating Company ***National Priorities List (NPL)*** Site. To date approximately $150,000 has been awarded to CATE. Only one grant may be given per site. The group must provide a 20% match in services or cash. Contact the EPA Community Involvement Coordinator shown below for further information.

Direct comments or questions to:

David Keefer
Remedial Project Manager
OR
L'Tonya Spencer
Community Involvement Coordinator

Superfund Remedial & Technical Services Branch
U.S. EPA
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COMMUNITY INVOLVEMENT OPPORTUNITIES

Public Comment Period
Dates: August 17 through September 15, 2005
Purpose: To comment on the Proposed Plan for Escambia Treating Company Site OU1.

Public Meeting
Date: September 1, 2005
Time: 6:30 p.m.
Place: New Hope Missionary Baptist Church - Main Sanctuary
Pensacola, Florida
Purpose: To discuss the Proposed Plan for Escambia Treating Company Site OU1.

SITE BACKGROUND, OVERVIEW AND HISTORY

The Escambia Treating Company (ETC) site is located at 3910 North Palafox Street in the City of Pensacola, Escambia County, Florida and is bordered on the north by residential neighborhoods, on the west by Palafox Street, on the east by the CSX Railroad switch yard, and on the south by an industrial park.

Site Background

The ETC site was first developed in 1942 as a manufacturing facility of wood products treated with creosote. ETC's Pensacola facility was involved in the pressure-treating of wood products, primarily utility poles and foundation pilings. Southern Yellow Pine was debarked, formed, dried, impregnated with preservatives, and stored at the facility until delivered to customers. From 1944 to approximately 1970, coal-tar creosote was used as the primary wood preservative. Pentachorophenol (PCP) dissolved in No. 6 diesel fuel was used at the facility as a preservative starting in 1963, and was the sole preservative in use from 1970 to 1982 when the facility closed.

Creosote is a mixture of more than 200 organic compounds that are distilled from coal tar at temperatures between 200°C and 400°C. PCP is commonly acquired in bulk crystalline form and dissolved in hot diesel fuel because PCP is a solid at room temperature.

The use of a third wood preservative, Chromate copper arsenate (CCA) has not been historically identified as part of the process used at the ETC site. However, the presence of copper, chromium and arsenic in several soil samples collected in a preliminary investigation at the site suggests the possibility that use of the CCA preservative process may have been explored at the facility.

Before pressure impregnation of preservative into the debarked and formed wood products, naturally-occurring moisture and resin were removed from the Southern yellow pine using a steam/vacuum process using treatment cylinders. Liquids in the wood, which were either vaporized and removed by a vacuum system or removed from the wood by internally-generated steam, settled to the bottom of the cylinders.

Following the application of the heating/vacuum cycle, the preservative was impregnated into the wood under pressure. After the impregnation cycle, the pressure was reduced in the treating cylinders, and the wood products were removed from the cylinders on trams used to transport the wood stock. Following pressure reduction, excess wood preservative was allowed to drain from the treated products along drip tracks before on-site storage in one of the nine treated-wood-storage areas.

Contaminated wastewater and runoff from the former treatment area were the primary wastes managed at the facility. In the early years of operation, all wastewater was sent to an unlined impoundment located in the northeastern part of the site. This natural earthen unit was used from the mid-1940s through the mid-1950s. After the mid-1950s, process wastewater and contaminated runoff were managed by two separate systems. Process wastewater was initially managed by an oil/water separator to recover treating chemicals and process water for reuse in the wood-treating process. The system consisted of two concrete impoundments. The "hot" pond received wastewater laden with PCP and creosote before its discharge via shower heads into the "cold" pond. The shower heads cooled the water, volatilizing some of the organic constituents. Water from this unit was discharged to the Pensacola sanitary sewer system or pumped back into the process vacuum line.

The contaminated runoff from the treatment area was directed into a runoff collection/separation system. This system consisted of a concrete collection pad and a series of separation basins, which removed wood-treating solutions from the runoff water. Runoff was then pumped via a storm-drain system to an impoundment located in the southern section of the facility. The impoundment, which was constructed of sectionally poured concrete, had a holding capacity of 225,000 gallons. Wastewater in the impoundment, also known as the "swimming pool", was allowed to evaporate, and the remaining liquid was discharged to the Pensacola sanitary sewer system.

Site Regulatory History

The ETC site has a lengthy regulatory history that begins with the submittal of the Notification of Hazardous Waste Activity Form (CERCLA 103C) to EPA on August 15, 1980.

Although ETC ceased operation in October 1982, three surface impoundments at the facility that contained sludge and wastewater required permitting and closure.

From 1985 to 1989, various violations were noted at the facility and enforcement actions were taken by EPA and FDEP.

In April 1989, EPA conducted a compliance evaluation inspection at the ETC site, and noted several violations.

A preliminary review and visual site inspection were conducted during the RCRA Facility Assessment (RFA) to identify Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) in June of 1990 by EPA. The RFA was required pursuant to the Hazardous and Solid Waste Amendments (HSWA) of 1984, which expanded EPA's authority under RCRA to require corrective action for releases of hazardous waste or constituents from SWMUs for facilities such as ETC that sought a RCRA permit. The RFA identified 31 SWMUs and 2 AOCs of which 16 SWMUs and 1 AOC were deemed to require further action.

The EPA environmental response team was activated by EPA Region 4 to perform a preliminary assessment of the site. The information obtained during this investigation indicated that a removal action was needed. In October 1991, EPA began a removal action to excavate all materials of concern. The removal

action was completed in 1992. The excavated material (approximately 255,000 cubic yards) is currently stockpiled under secure cover onsite.

WHAT ARE THE "CONTAMINANTS OF CONCERN"?

Measurable concentrations of many chemicals of potential concern were found in surface soils. For protection of human health, two groups of chemical are the major chemicals of concern (COCs). These include dioxins, whose toxicity is represented as 2,3,7,8-tetrachloro-dibenzo-p-dioxin equivalents (2,3,7,8-TCDD EQ)), and carcinogenic polycyclic aromatic hydrocarbons (cPAHs), whose toxicity is represented by benzo(a)pyrene equivalents (BaP EQ).

2,3,7,8-TCDD is known to be one of the most potent compounds in producing the skin disorder chloroacne. In addition, symptoms such as aching muscles, loss of appetite, weight loss, digestive disorders, easy fatigability, insomnia, loss of libido, headache, neuropathy, sleep disturbance, sensory changes, and uncharacteristic bouts of anger have been reported in case studies of small groups of people exposed to 2,3,7,8-TCDD. Evidence that 2,3,7,8-TCDD is a human carcinogen has been difficult to assess, but animal data clearly indicate that it acts as either a complete carcinogen or a carcinogen promoter and has been classified by EPA has a probable human carcinogen.

Evidence exists that certain PAHs are carcinogenic. Cancer associated with exposure to PAH-containing mixtures in humans occurs predominantly in the lung and skin following inhalation and dermal exposure, respectively. In addition, some ingestion of PAHs is likely due to swallowing of particles containing PAHs subsequent to mucociliary clearance of the particles from the lungs.

Animal studies indicate that other PAHs can cause noncancer health effects impacting bone marrow, lymphoid organs, gonads and intestinal epithelium. In addition the skin is susceptible to PAH-induced toxicity in humans. Several of these PAHs are included as soil COCs in order to protect groundwater as they have been detected at notable concentrations in groundwater.

In 1994, the site was added to the National Priorities List and EPA began a Remedial Investigation/Feasibility Study (RI/FS) at the ETC site to investigate the nature and extent of contamination at the site and to develop and evaluate remedial alternatives. In 1995, EPA nominated the Escambia site as part of a National Relocation Evaluation Pilot.

EPA issued an Interim ROD in 1997 for the ETC site. Major components of the interim remedy involved the relocation of households which were affected by contamination from the site, followed by demolition of structures. Households in the Rosewood Terrace/Oak Park/Escambia Arms and Pearl Street/Hermann Avenue neighborhoods have been relocated and demolition of structures has been initiated.

In 1998, EPA issued an Explanation of Significant Difference (ESD) to add site maintenance to the interim remedial action. Maintenance work includes making any necessary repairs to the stockpile cover, landscaping, and drainage ditch pending final cleanup. Also in 1998, EPA designated the ETC area a Brownfield Pilot program and issued the final RI/FS report for the site and divided the site into two ***operable units***. Operable Unit 1 (OU1) addresses the ETC site source soils as well as soils in adjacent or nearby areas that have been impacted by site contaminants, and is the subject of this proposed plan. Operable Unit 2 (OU2) addresses groundwater impacted by site contaminants. EPA initiated a separate multiple-phase RI/FS in 1998 to investigate the nature and extent of offsite groundwater contamination attributable to the ETC site. The third phase of the OU2 groundwater RI/FS has recently been completed.

In 2004, EPA completed an investigation involving the collection and analysis of additional offsite surface and subsurface soils to further define and evaluate the extent of ETC-related contamination in offsite areas near the ETC site.

Onsite Contamination

SWMU 10 and Process Area

The 1998 RI results suggested that the removal action completed in 1992 was successful in removing the most highly contaminated soil, however, it did not remove all the contaminated soil associated with the SWMU 10 (northwest

portion of the site) and Process Area (north-central portion of the site). Contaminant concentrations in samples collected during the RI were generally lower than concentrations collected during investigations conducted before and during the removal action. However, some hot spots still remained onsite. Some of the PAH, PCP, and dioxin concentrations were detected in surface and subsurface soil samples collected adjacent to the eastern perimeter and western sidewall of the SWMU 10 excavation. PAHs were also detected at elevated levels (above background sample concentrations) in several of the Process Area subsurface soil samples.

Perimeter of Stockpile

The concentration range and number of contaminant detections for the results from 1998 RI samples collected around the perimeter of the stockpile suggested that the covered stockpile of contaminated soil may not currently be acting as a contributing source to site contamination. However, the detected levels, along with the pattern of positive hits, suggest that portions of the pile may be covering contaminated soil.

Remainder of ETC Site

Three other general areas of the site have notable concentrations of contaminants in surface soils. These include the rubble pile in the southeast corner of the site, the area south-southwest of the old ETC office building, and a small area just north of the Process Area excavation and south of the Rosewood Terrace neighborhood. In the area of the rubble pile, notable detections included carcinogenic PAHs (cPAHs) and other semivolatile organic compounds (SVOCs), dieldrin, and endrin. In the area south of the ETC office building, several pesticides, including dieldrin, gamma chlordane, 4,4'-DDT, and heptachlor epoxide were detected at elevated concentrations. In addition, several metals were detected at levels greater than the highest background concentration in this area. Arsenic, cadmium, chromium, copper, lead, nickel, potassium, vanadium, and zinc all were detected at elevated concentrations in the area south of the ETC office. Although the highest 2,3,7,8-TCDD TEQ concentrations were associated with the SWMU 10 excavation, elevated dioxin levels were common across the site.

Offsite Contamination

Considering the time of operation of the facility, migration of contaminants via process operations (e.g., dispersion of contaminants via wind as steam rose from treatment cylinders) and from surface soil volatilization and dust generation to offsite soils are plausible pathways in terms of impacting large offsite areas of surface soil. It also provides a plausible explanation for the presence of ETC-related surface soil contamination in areas that are not directly adjacent to the ETC site. The results of the 1998 RI and the 2004 Additional Soil Investigation indicated soil contamination in offsite areas adjacent to or near the ETC site.

Rosewood Terrace/Oak Park/Escambia Arms Area

Although PAHs were detected in many of the surface soil samples collected in the Rosewood Terrace/Oak Park/Escambia Arms neighborhood north of the ETC site, the greatest concentrations of PAHs occurred in two general areas. These areas included several residences adjacent to the ETC site and a portion of the Escambia Arms complex. The area adjacent to the ETC site also included the highest levels of 2,3,7,8-TCDD TEQ (dioxin) concentrations. Several pesticides were detected in several of the neighborhood samples, but the highest concentrations were found in the area adjacent to the ETC site.

Pearl Street/Hermann Avenue

The occurrence of PAHs in the Pearl Street/Hermann Avenue area surface soil samples appears to be more widespread than in the Rosewood Terrace/Oak Park/Escambia Arms neighborhood. The highest levels were detected in sampling grids located north of Hermann Avenue and grids located north and

south of Pearl Street closest to the railroad.

Pesticide contamination also was widespread in the Pearl Street/Hermann Avenue area. Some of the highest concentrations of 4,4'-DDT, 4,4'-DDE, dieldrin, and gamma-chlordane were detected in several sampling grids located north of Hermann Avenue. Arsenic, copper, and chromium also were detected frequently at levels greater than the highest background concentration. However, as occurred with PAH levels, the highest arsenic and chromium concentrations were detected in the sample collected from near a drum manufacturing facility located north of the ETC site.

Because only a limited number of samples were collected for dioxin analysis in the 1998 RI, the 2004 soil investigation included the collection of 30 composite samples from the Pearl Street/Hermann Avenue area for dioxin analysis. Result indicated that a substantial portion of the samples had dioxin TEQ levels exceeding the Florida residential cleanup value for dioxin [7 parts per trillion (ppt)], but only three locations exceeding the industrial cleanup target level of 30 ppt.

Near "SWMU 10"

Surface soil in the railroad yard east of SWMU 10 is not contaminated with ETC-related contaminants at levels above Florida industrial cleanup levels. However, surface soil to the north and east of the SWMU 10 excavation does exceed the cleanup level for dioxin. In addition, contaminant concentrations in subsurface soils collected from this area do exceed cleanup levels established for the protection of groundwater.

Clarinda Triangle

Clarinda Triangle is the area across Palafox Highway from the ETC site and is bounded by Palafox Street, Clarinda Lane, North Pace Boulevard and West Loretta Street. A substantial portion of the residential neighborhood within the Clarinda Triangle has surface soil that exceeds the Florida residential cleanup values for dioxin TEQ, or the risk-based residential cleanup level for benzo(a)pyrene equivalents (BaP EQ). Relatively few of the sample exceeded industrial cleanup levels.

Palafox Industrial Park

The only soil in the Palafox Industrial Park that exceeds the industrial criterion for dioxin is located along the fence line with the ETC Site.

Commercial Strip

None of the samples from the Palafox Street/Hickory Street Commercial Strip exceed the industrial soil cleanup target levels for dioxin or BaP EQ. One sample that exceeds the residential Florida cleanup value is located along a path between the commercial establishments and the former apartment complex immediately adjacent to the northeast.

Community Relations

EPA has conducted community relations activities throughout the remedial investigation process, including public meetings and the establishment of an Administrative Record. An Information Repository containing a copy of the Administrative Record has been established at the West Florida Regional Library.

Informational Fact Sheets, similar to this one, have been issued periodically to help the community stay informed about progress and activities related to the Site. These updates have been published and distributed to interested parties in the community. Community outreach activities associated with the interim ROD and ongoing response activities continue to be performed.

The Information Repository at the West Florida Regional Library contains copies of this and other information about the ETC Site. Additionally, some residents have formed a community group known as CATE. CATE received a Technical Assistance Grant (TAG) for the ETC site.

WHAT IS RISK AND HOW IS IT CALCULATED?

Human Health Risk

A Superfund human health risk assessment estimated the "baseline risk." This is an estimate of the likelihood of health problems occurring if no cleanup action were taken at a site. To estimate the baseline risk at a Superfund site, EPA undertakes a four-step process:

Step 1:	Analyze Contamination	Step 3:	Assess Potential Health Dangers
Step 2:	Estimate Exposure	Step 4:	Characterize Site Risk

In Step 1, EPA looks at the concentrations of contaminants found at a site as well as past scientific studies on the effects these contaminants have had on people (or animals, when human studies are unavailable). Comparisons between site-specific concentrations and concentrations reported in past studies help EPA to determine which contaminants are most likely to pose the greatest threat to human health.

In Step 2, EPA considers the different ways that people might be exposed to the contaminants identified in Step 1, the concentrations that people might be exposed to, and the potential frequency and duration of the exposure. Using the information, EPA calculates a "reasonable maximum exposure" (RME) scenario, which portrays the highest level of human exposure that could reasonably be expected to occur.

In Step 3, EPA uses the information from Step 2 combined with information on the toxicity of each chemical to assess potential health risks. EPA considers two types of risk: cancer risk and noncancer risk. The likelihood of any kind of cancer resulting from a Superfund site is generally expressed as an upper bound of probability; for example a "1 in 10,000" chance." In other words, for every 10,000 people that could be exposed, one extra cancer may occur as a result of exposure to site contaminants. EPA's target range for acceptable cancer risk is "1 in 1,000,000" to "1 in 10,000." These probabilities are often expressed in scientific notation (i.e., 1×10^{-6} or 1E-6 to 1×10^{-4} or 1E-4). An extra cancer case means that one more person could get cancer than would normally be expected to from all other causes. For non-cancer health effects, EPA calculates a "hazard index." The key concept here is that a "threshold level" (measured usually as a hazard index less than 1) exists below which non-cancer health effects are no longer predicted.

In Step 4, EPA determines whether site risks are great enough to cause health problems for people at or near the Superfund site. The results of the three previous steps are combined, evaluated, and summarized.

Ecological Risk

Current EPA guidance recommends an eight-step process for designing and conducting ecological risk assessments (ERAs) for the Superfund Program. Steps 1 and 2 constitute a screening level ecological risk assessment (SERA), which compares existing site data to conservative screening level values to identify those chemicals which can confidently be eliminated from further evaluation, and those for which additional evaluation is warranted. At the end of Step 2, all involved parties meet and discuss whether: there is adequate information to conclude that ecological risks are negligible and therefore no need for remediation on the basis of ecological risk; if the information is not adequate to make a decision at this point, the ERA process will continue to Step 3; or the information indicates a potential for adverse ecological effects, and a more thorough assessment is warranted.

If further evaluation is warranted, Step 3 of the eight-step process is initiated as the planning and scoping phase for implementing a baseline ecological risk assessment (BERA). Step 3 includes several activities, including refinement of the list of contaminants of potential concern (COPCs), further characterization of ecological effects, refinement of information regarding contaminant fate and transport, complete exposure pathways, ecosystems potentially at risk, selecting assessment endpoints, and developing a conceptual model with working hypotheses or questions that the site investigation will address. In Step 4, a sampling and analysis plan (SAP) is developed and used to gather further data to support the BERA. Step 5 is a site visit to verify the Step 4 sampling design. Step 6 of the process is the actual data collection for the BERA.

Step 7 is the summary and analysis of the data, and prediction of the likelihood of adverse effects based on the data analysis, which is presented as the risk characterization. It also includes consideration of uncertainties and ecological significance of risks in view of the types and magnitude of effects, spatial and temporal patterns, and likelihood of recovery.

Step 8, the final step, results in a discussion of significant risks, recommended cleanup (if any), and future efforts.

SCOPE OF PROPOSED PLAN

This proposed plan covers the first of two designated operable units for contamination related to the ETC Site. OU1 will address the existing stockpile, soil contamination onsite, and soil contamination in areas adjacent to or near the site. The cleanup alternatives evaluated for OU1 in the FS represent a range of waste-management strategies to reduce risk to people and the environment posed by these areas.

The two operable units currently underway or planned for the ETC Site under the ***Superfund*** long-term (remedial) program are:

- **OU1 - Source Soils:**
OU1 is the subject of this proposed plan and addresses onsite source soils as well as site-contaminated soils in areas adjacent to or near the site.

- **OU2 - Groundwater:**
An RI/FS to determine the nature and extent of the contamination plume emanating from the ETC site is currently underway.

STUDY FINDINGS AND RISK

As part of the RI/FS, an analysis was conducted to estimate the human health or environmental problems that could result if OU1 surface soil contamination is not cleaned up. This analysis, known as a baseline risk assessment, focused on the current and future human health and environmental effects from long-term direct exposure to the contaminants found at the ETC site. Potential receptors include current and future workers and current and future residents. EPA has concluded that the potential risk to human health at OU1 would stem from incidental ingestion, dermal contact, and inhalation of dust released from contaminated soil. As a measure of conservatism and to avoid redundancy when evaluating residential receptors, an effort was made to identify the most sensitive receptor to calculate noncancer hazards and excess cancer risk levels. For noncarcinogens, a child resident is the most sensitive residential receptor, due to its lower body mass relative to the amount of chemical intake. For carcinogens, a child through adult resident is the most sensitive receptor because the excess cancer risk for the child is assumed to be additive to that of an adult. Both excess cancer risk and noncancer hazards were calculated for site workers since the exposure parameters do not change over the exposure period as they do for residential receptors.

It is EPA's current judgment that implementation of the Preferred Alternative identified in this Proposed Plan, or one of the other alternatives considered in the Proposed Plan, is necessary to protect public health and welfare and the environment from actual or threatened releases of hazardous substances, pollutants or contaminants from this site (OU1) which may present an imminent or substantial endangerment to public health or welfare.

Human Health Risks

The findings of the 1998 ETC human health risk assessment indicated that cancer risk at the ETC site is greater than EPA's acceptable target range for future residential use. Additionally, cancer risks at three sample grids in the Rosewood Terrace neighborhood were greater than EPA's acceptable risk range for current residential use. The risk assessment also indicated that the cancer risk is within or below EPA's acceptable target range for the current use of the site by visitors and workers. The site is also within EPA's acceptable risk range for future commercial/industrial use.

Non-cancer effects, as measured by hazard indices (HIs) greater than one, may occur at the ETC site for future residential use. Additionally, residential use at one sample grid in the Pearl Street/Hermann Avenue neighborhood results in an HI that is not acceptable. The risk assessment also indicated that non-cancer effects are not expected at the ETC site for its current (visitor) use or for future use as a commercial/industrial site. Additionally, with the exception of the one sample grid in the Pearl Street/Hermann Avenue noted above, both the Rosewood Terrace/Oak Park/Escambia Arms and Pearl Street/Herman Avenue neighborhoods were within the acceptable ranges of HIs for current residential, and future industrial use. It should be noted that with the exception of two residences in the Pearl Street/Hermann Avenue neighborhood, all the residents of the Rosewood Terrace/Oak Park/Escambia Arms and Pearl Street/Hermann Avenue neighborhoods were permanently relocated as part of the National Pilot Relocation Project described previously.

An evaluation of the soil data collected in 2004 suggests that the BaP EQ and dioxin levels found in the 2004 soil samples do not alter the 1998 risk assessment conclusions. However, because the 1998 human health risk assessment did not consider the soils currently stockpiled and covered onsite, an addendum to the risk assessment was completed to assess the risk to human health attributable to exposure to the soil that was excavated during the removal action in 1991-1992 (CDM 2005). This soil is currently stockpiled on-site beneath a high density polyethylene (HDPE) liner which prevents direct contact exposure to the excavated materials and prevents runoff, but it is not a permanent solution. Thus, the addendum assessment examined a future condition where the liner is no longer in place. The following media/receptors were examined:

(1). Stockpiled surficial soil. Potential receptors are future site visitors, residents and/or workers.

(2). Air. Dust released from the stockpiled soil may impact future site visitors, residents and/or workers.

Potentially complete exposure pathways examined in the addendum risk assessment are:

- inadvertent ingestion of soil,
- dermal contact with soil, and
- inhalation of dust.

In the future, if no action is taken and the the HDPE liner degrades, fails, or is removed, potential receptors include site visitors, site workers, or residents. For a site visitor, the total incremental lifetime cancer risk estimate is 9×10^{-3}, which is above EPA's acceptable target range for carcinogenic risk at Superfund sites. This range is one-in-ten-thousand (1×10^{-4}) to one-in-one-million (1×10^{-6}). Incidental ingestion and dermal contact exposure to dioxin in stockpiled soil accounts for a significant portion of the risk. Non-cancer effects are not expected based on an HI less than one. For a site worker and site resident, the total incremental lifetime cancer risk estimates are 4×10^{-2} and 3×10^{-1}, respectively. Incidental ingestion and dermal contact exposure to dioxin accounts for the majority of the risk. Non-cancer effects are not expected for the site worker but are possible for a site resident based on a hazard index of 18. Pentachlorophenol (PCP) accounts for a majority of the non-cancer hazard. It should be noted that only 10 samples analyzed for dioxin prior to the removal action were used for this assessment and the range of concentrations was large (0.0024 mg/kg to 1.22 mg/kg). Given the small data set and large variability of the data, the risk associated

with exposure to the stockpiled soil may be overstated.

The data collected in 1991-92 does indicate that soil in the stockpile is heavily contaminated with wood treating chemicals (creosote derivatives [PAHs] and PCP). Dioxins are associated as byproducts of the manufacture of PCP. Direct contact exposure to this soil, even on an infrequent basis (i.e., visitor scenario) results in an unacceptable excess cancer risk. As noted previously, the dioxin concentration used in the calculations may not be representative of the entire stockpile and may therefore overstate the excess cancer risk. However, the soil is so heavily contaminated with PAHs and PCP that the calculated risks, excluding the dioxin data, are still above EPA's acceptable target risk range.

Ecological Risks

The major ecological feature of concern near the ETC site is Bayou Texar. Potential site impact on Bayou Texar via groundwater is currently being investigated as part of the OU2 RI/FS.

For the site itself, a bioassessment was completed as part of a preliminary assessment conducted 1991. Species observed on the site are reported to be common in the region or throughout the county. The bioassessment concluded that areas of hydrophytic vegetation on the site were most likely caused by the collection of runoff into slight depressions underlain by impervious layers of concrete or oily creosote waste. These areas did not possess the three criteria necessary to meet the regulatory definition of a wetland (i.e., the presence of hydric soils, a predominance of hydrophytic vegetation, and the appropriate hydrology). Further, they were not in hydrologic communication with groundwater or surface water supplies and therefore were not functioning as a water storage or recharge area. The preliminary assessment concluded that no areas of ecological concern existed on the site that warranted further investigation or would influence removal or remediation decisions.

Remedial Action Objectives (RAOs) Cleanup Goals

The Remedial Action Objectives for OU1 are to:

- prevent ingestion, inhalation, or direct contact with surface soil that contains concentrations of contaminants in excess of the remedial goals;
- control migration and leaching of contaminants in surface and subsurface soil to groundwater that could result in groundwater contamination in excess of EPA drinking water standards;
- prevent ingestion or inhalation of soil particulates that contain contaminant concentrations in excess of remedial goals; and
- control future releases of contaminants to ensure protection of human health and the environment.

In 1995, the Escambia Board of County Commissioners designated the area near the ETC Site as a Community Redevelopment Area. EPA designated the area a Brownfield Pilot Program in 1998. The Palafox Redevelopment Task Force, a working group of stakeholder representatives whose long term goal is to redevelop the Palafox Corridor into a commercial, light industrial, and or commerce center was organized in 1998. A grant was issued to the Escambia County Neighborhood & Environmental Services Department to fund the Redevelopment/Reuse Pilot and a conceptual design was developed for the area.

When combined with the previously described household relocation and the use of institutional controls, the proposed action will reduce the excess cancer risk associated with exposure to contaminated surface soil to EPA's target range. Cancer risk will be reduced by reducing dioxin concentrations to the Florida industrial cleanup level of 30 ppt and BaP EQ concentrations to the risk-based level of 400 parts per billion (ppb).

Additionally, further protection is achieved with the cleanup of surface and subsurface soil concentrations of the COCs listed in Table 1 to their respective cleanup goals for protection of groundwater. Table 2 and Figures 1 through 8 present approximate volumes and extent of soil contamination that will be addressed.

Table 1: Cleanup Goals

Protection of Human Health (Surface Soil)	
Contaminant of Concern	**Cleanup Goal (ppb)**
BaP EQ (cPAHs)	400
2,3,7,8-TCDD (dioxin TEQ)	0.030
Protection of Groundwater	
Naphthalene	419
Acenaphthene	1,954
Fluorene	1,525
Phenanthrene	3,829
2-Methylnaphthalene	2,394
Dibenzofuran	310
Carbazole	6.5
Pentachlorophenol	5.1
Remedial Goals include applicable criteria specified by Florida Administrative Code (F.A.C.) 62-777 and 62-780.	

DESCRIPTION OF ALTERNATIVES

The alternatives for reducing risks posed by contamination in the specific areas of concern at OU1 are described below.

The specific details of the selected remedy will be defined during the remedial design of the cleanup remedy.

Common Elements: Except for the No Action Alternative, all the remedial alternatives developed for OU1 include soil removal from offsite areas and transport to the ETC site. For planning purposes, the excavation of approximately 312,000 cubic yards of soil (on and offsite) is anticipated.

Additional information on the cleanup options developed for OU1 can be found in the January 2005 ***Feasibility Study*** in the ***Administrative Record*** at the West Florida Regional Library. EPA is seeking comments on these options and the preferred alternative described in this document before selecting a remedy for OU1. (See page 1 for meeting and public comment period).

Table 2: Estimated Volumes of Soil Above Cleanup Levels

Area of Concern	Surface Contamination Volume (cubic yards)	Subsurface Contamination Volume (cubic yards)
Onsite	103,194	101,025
Offsite Area near SWMU 10	1,500	33,125
Rosewood Terrace/Oak Park/ Escambia Arms	41,250	0
Pearl/Hermann	15,340	0
Clarinda Triangle	15,700	0
Palafox Industrial Park	800	0
Commerical Strip	0	0
Stockpile	255,000	0
Total	566,934	

ALTERNATIVE #1 :No Action with Monitoring

Estimated Capital Cost: $0
Estimated Annual O&M Cost for Monitoring: $10,200
Estimated Present Worth Cost for Monitoring:$126,000

This alternative is a required component of the FS, and provides a comparative basis for the other alternatives. Under this alternative, EPA would take no action at the site to prevent exposure to soil contamination, and only monitoring would be performed.

ALTERNATIVE #2: Soil Excavation, with Capping/Containment of Contaminated Soils

Estimated Capital Cost: $24.3 million
Estimated Annual O&M Cost: $51,000
Estimated Present Worth Cost:$24.9 million

This alternative involves the placement of excavated contaminated soils, along with soil from the existing stockpile, back into the existing onsite excavations after they have been expanded as needed and lined with an appropriate geomembrane liner. The material would be capped with various soil and clay layers as well as a geomembrane liner to provide a relatively impermeable cover layer. Depending on final use of the area, a top asphalt layer could also be considered, and appropriate institutional controls and deed restrictions enacted to further limit exposure. Excavated areas offsite as well as onsite areas not used to contain contaminated soil would be backfilled with clean fill and top soil and revegetated.

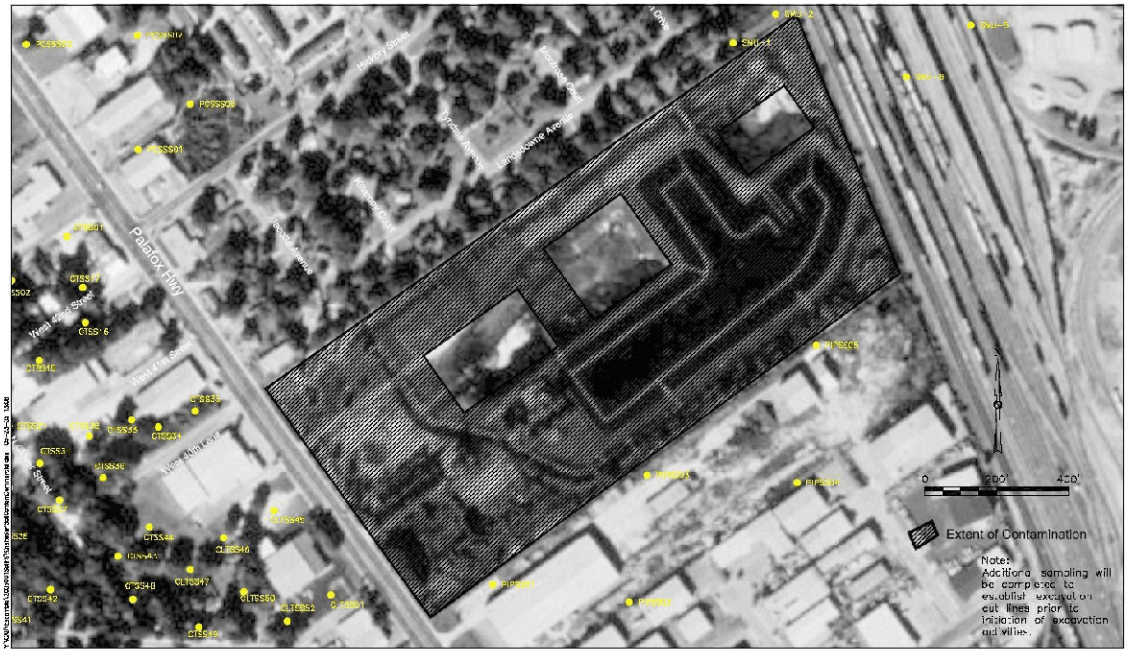
In an effort to reduce costs, this alternative could also be implemented with a smaller excavation effort. The smaller excavation effort can be achieved by foregoing excavation of contaminated surface soils on certain portions of the site (south and west of the existing stockpile), and instead covering those surface soils with an extension of the proposed cap's soil cushion, top soil and vegetative cover layers. Following this option would reduce the total present worth cost for this alternative to approximately $24 million.

ALTERNATIVE #3: Soil Excavation, Treatment with Thermal Desorption, and Onsite Disposal

Estimated Capital Cost: $246.7 million
Estimated Annual O&M Cost: $11,000
Estimated Present Worth Cost:$246.8 million

Alternative 3 involves excavating contaminated soils and transporting to a central area for consolidation and staging. The excavated soil, along with soil from the current stockpile, would be treated via thermal desorption and a dechlorination process that heats waste to low or medium temperatures in order to volatilize water and organic contaminants. Excavated areas on site would be back filled with treated material. Appropriate institutional controls and deed restrictions would be enacted to further limit exposure. Excavated areas offsite would be backfilled with clean fill and top soil and revegetated.

As indicated for Alternative 2, this alternative could also be implemented with a smaller excavation effort by foregoing excavation of contaminated surface soils on certain portions of the site and instead covering those surface soils with an extension of the proposed cap's soil cushion, top soil and vegetative cover layers. Following this option would reduce the total present worth cost for this alternative to approximately $231 million.



Escambia Treating Company
Pensacola, Florida

Figure 1
Aproximate Extent of Onsite Surface Soil Contamination
Above Commercial Cleanup Levels (IE-6/HQ=1)

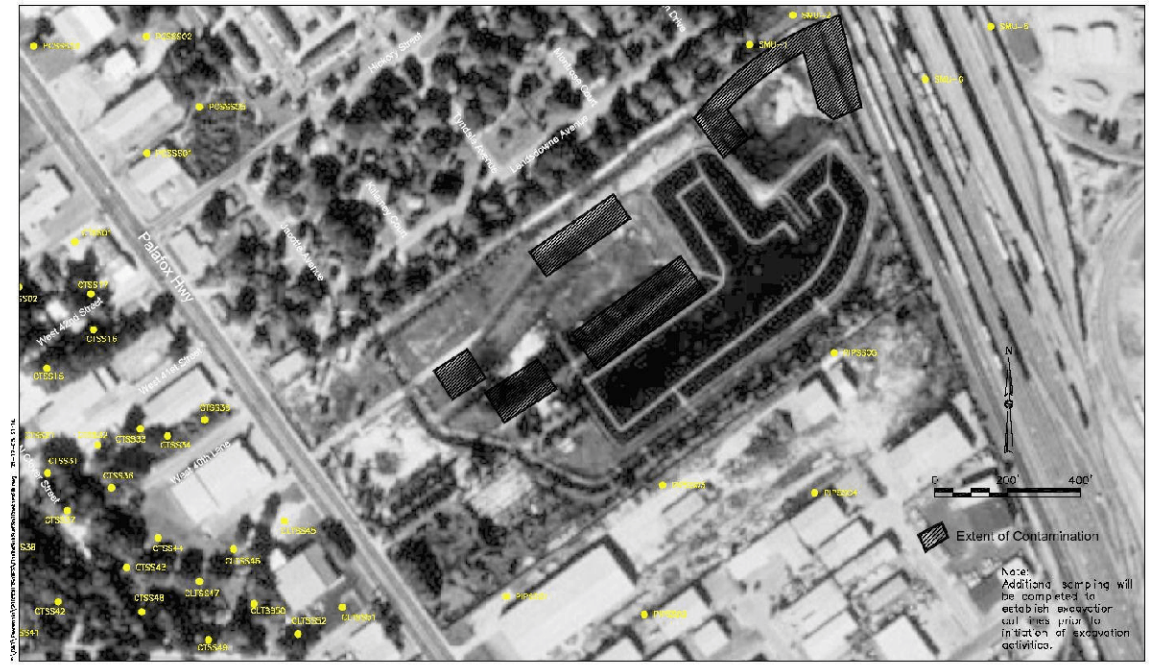


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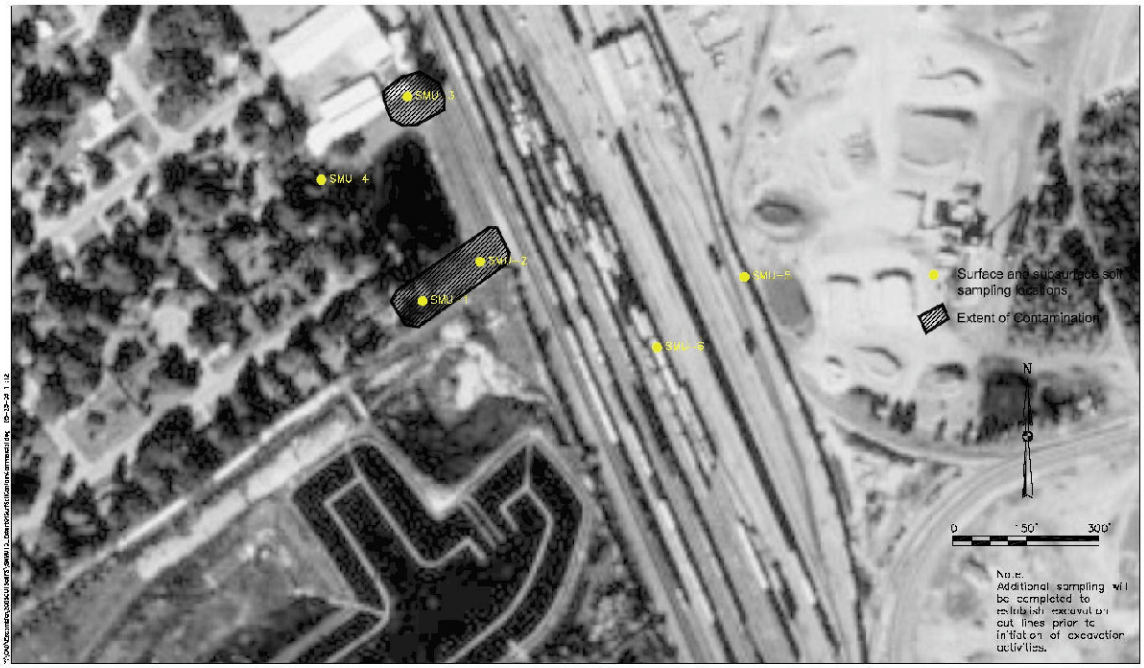
Figure 2
Aproximate Extent of Onsite Subsurface Soil Contamination
Above Groundwater Cleanup Protection Levels



Escambia Treating Company
Pensacola, Florida

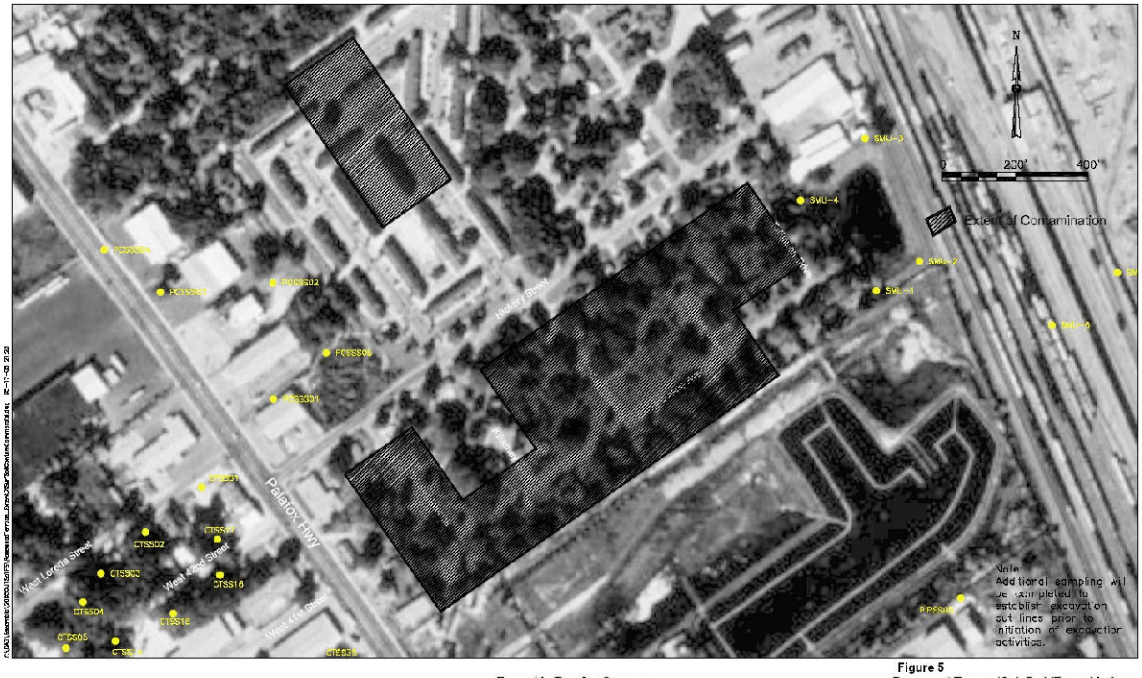
Figure 3

SWMU 10 Approximate Extent of Subsurface Soil Contamination Above Commercial Cleanup Levels (IE-5/HQ=1)

Escambia Treating Company
Pensacola, Florida

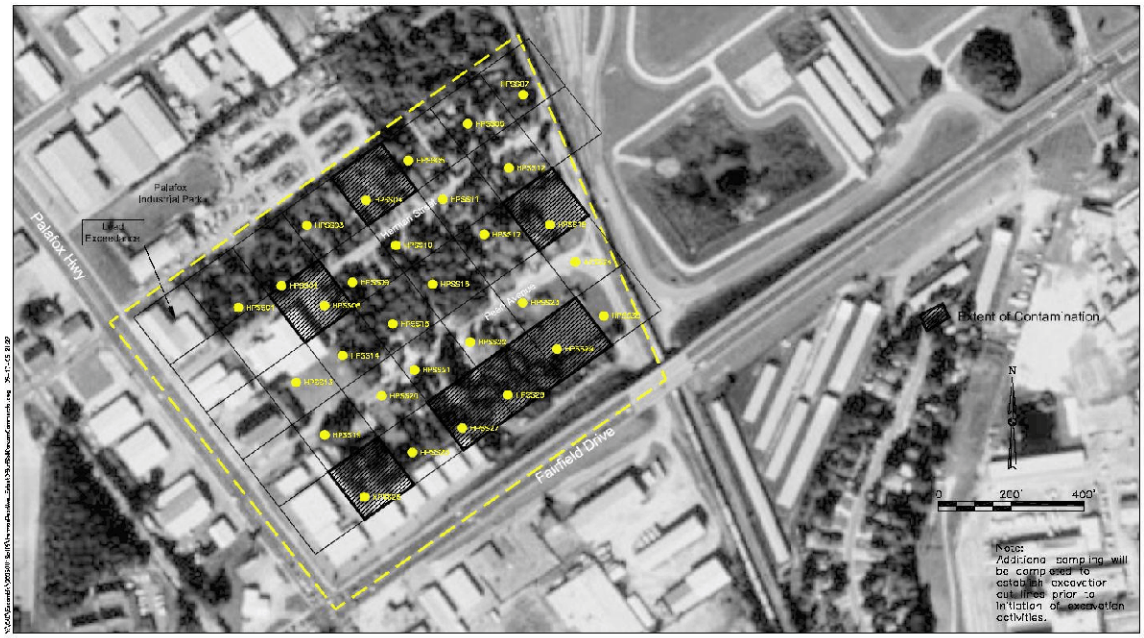
Figure 4

SWMU 10 Approximate Extent of Subsurface Soil Contamination Above Groundwater Protection Levels



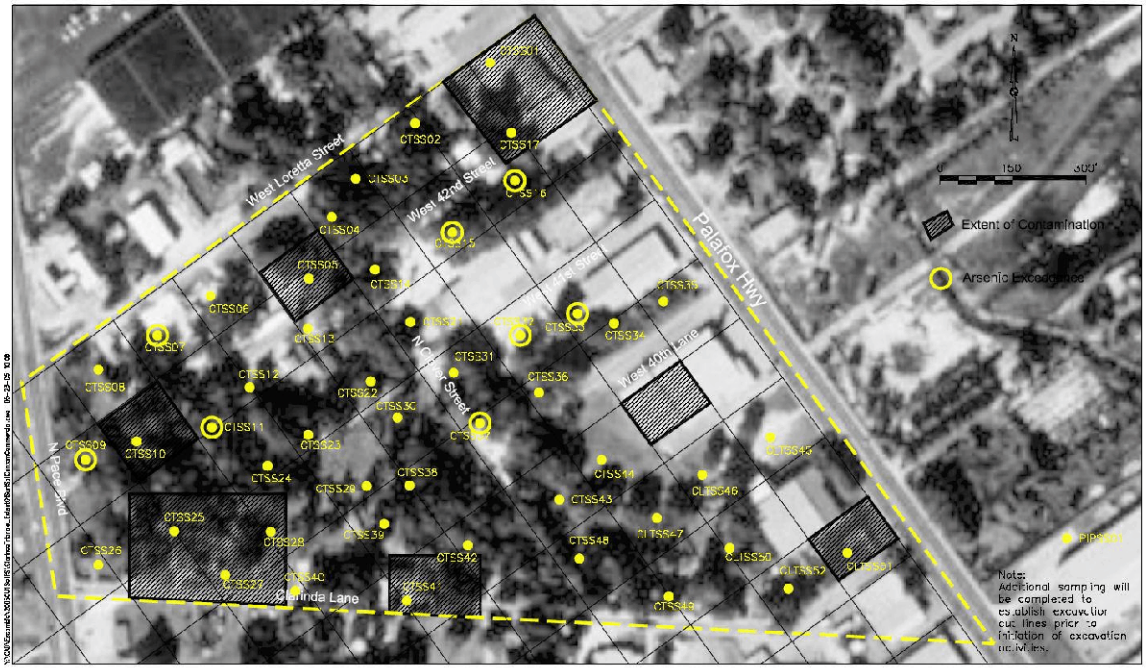
Escambia Treating Company
Pensacola, Florida

Figure 5
Rosewood Terrace/Oak Park/Escambia Arms
Approximate Extent of Surface Soil Contamination
Above Commercial Cleanup Levels (IE 8/HQ=1)



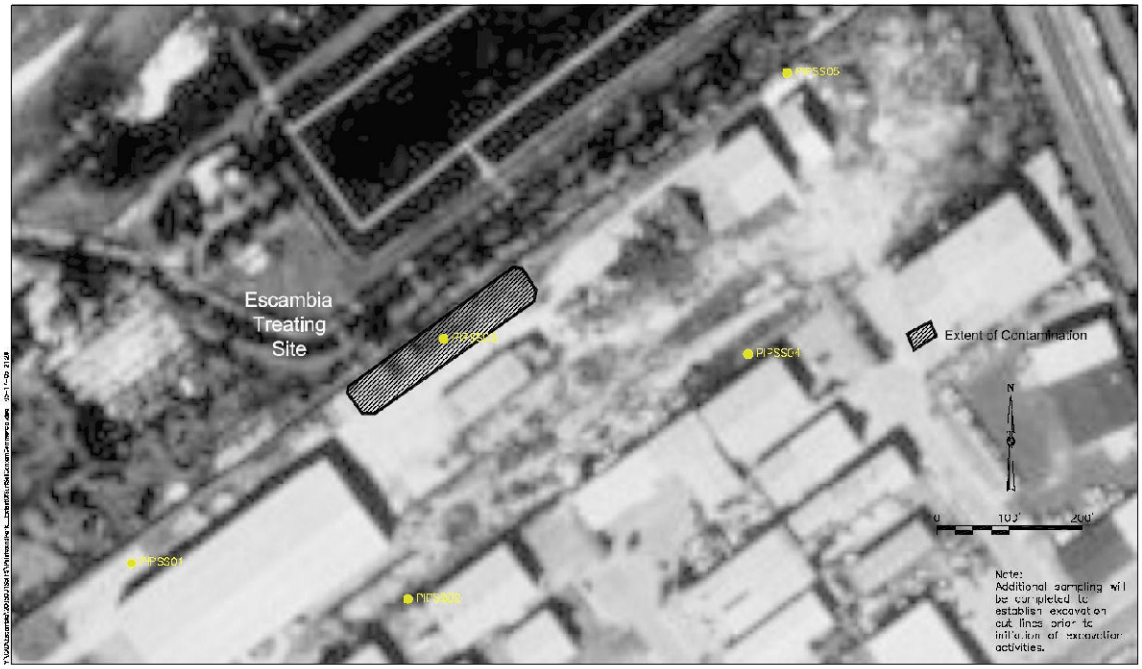
Escambia Treating Company
Pensacola, Florida

Figure 6
Pearl Street/Hermann Avenue Approximate Extent of Surface Soil Contamination
Above Commercial Cleanup Levels (IE-6/HQ=1)



Escambia Treating Company
Pensacola, Florida

Figure 7
Clarinda Triangle Approximate Extent of Surface Soil Contamination
Above Commercial Cleanup Levels (IE 6/HQ=1)



Escambia Treating Company
Pensacola, Florida

Figure 8
Palafox Industrial Park Approximate Extent of Surface Soil Contamination
Above Commercial Cleanup Levels (IE-6/HQ=1)

ALTERNATIVE #4: Soil Excavation, Treatment with Solid Phase Bioremediation, and Onsite Disposal

Estimated Capital Cost: $157.9 million
Estimated Annual O&M Cost: $15,000
Estimated Present Worth Cost:$158 million

Alternative 4 involves excavating contaminated soils and transporting to a central area for consolidation and staging. The excavated soil, along with soil from the current stockpile, would be treated via solid phase bioremediation process that uses biological processes to breakdown contaminants to less toxic chemicals. Excavated areas on site would be back filled with treated material. Appropriate institutional controls and deed restrictions would be enacted to further limit exposure. Excavated areas offsite would be backfilled with clean fill and top soil and revegetated.

As indicated for Alternative 2, this alternative could also be implemented with a smaller excavation effort by foregoing excavation of contaminated surface soils on certain portions of the site and instead covering those surface soils with an extension of the proposed cap's soil cushion, top soil and vegetative cover layers. Following this option would reduce the total present worth cost for this alternative to approximately $147 million.

ALTERNATIVE #5: Soil Excavation, Treatment with Chemical Oxidation, and Onsite Disposal

Estimated Capital Cost: $158 million
Estimated Annual O&M Cost: $15,000
Estimated Present Worth Cost:$158.1 million

Alternative 5 involves excavating contaminated soils and transporting to a central area for consolidation and staging. The excavated soil, along with soil from the current stockpile, would be treated via chemical oxidation which converts hazardous contaminants to non-hazardous contaminants using oxidizing agents such as peroxide, ozone and permanganate.

Excavated areas on site would be back filled with treated material. Appropriate institutional controls and deed restrictions would be enacted to further limit exposure. Excavated areas offsite would be backfilled with clean fill and top soil and revegetated.

As indicated for Alternative 2, this alternative could also be implemented with a smaller excavation effort by foregoing excavation of contaminated surface soils on certain portions of the site and instead covering those surface soils with an extension of the proposed cap's soil cushion, top soil and vegetative cover layers. Following this option would reduce the total present worth cost for this alternative to approximately $149 million.

ALTERNATIVE #6: Soil Excavation, Treatment with Solidification/Stabilization, and Onsite Disposal

Estimated Capital Cost: $51.8 million
Estimated Annual O&M Cost: $15,000
Estimated Present Worth Cost:$51.9 million

Alternative 6 involves excavating contaminated soils and transporting to a central area for consolidation and staging. The excavated soil, along with soil from the current stockpile, would be treated via solidification/stabilization. Solidification/stabilization is different than the treatment technologies included in Alternatives 3 through 5 in that contaminants are immobilized rather than degraded or altered to a nonhazardous chemical.

Immobilization would be achieved with the addition of appropriate binding agents or additives to contaminated soil.

Excavated areas on site would be back-filled with treated material and capped with a clean fill/top soil layer. Appropriate institutional controls and deed restrictions would be enacted to further limit exposure. Excavated areas offsite would be backfilled with clean fill and top soil and revegetated.

As indicated for Alternative 2, this alternative could also be implemented with a smaller excavation effort by foregoing excavation of contaminated surface soils on certain portions of the site and instead covering those surface soils with an extension of the proposed cap's soil cushion, top soil and vegetative cover layers. Following this option would reduce the total present worth cost for this alternative to approximately $49 million.

ALTERNATIVE #7
Soil Excavation and Evaluation, and Offsite Disposal

Estimated Capital Cost: $312.8 million
Estimated Annual O&M Cost: $14,000
Estimated Present Worth Cost:$312.8 million

Alternative 7 involves excavating contaminated soils and transporting to a central area for consolidation and staging. The excavated soil, along with soil from the current stockpile, would be transported to a RCRA Subtitle C (hazardous waste) Landfill. RCRA land disposal restrictions are applicable and treatment of waste material would be required prior to disposal in an offsite landfill. Excavated areas on site would be backfilled with clean fill and top soil.

As indicated for Alternative 2, this alternative could also be implemented with a smaller excavation effort by foregoing excavation of contaminated surface soils on certain portions of the site and instead covering those surface soils with an extension of the proposed cap's soil cushion, top soil and vegetative cover layers. Following this option would reduce the total present worth cost for this alternative to approximately $292 million.

COMPARISON OF ALTERNATIVES

A summary of EPA's comparison of the alternatives for reducing risk posed by contamination at ETC OU1 is discussed below. More details on this comparison can be found in the FS in the ***Administrative Record*** at the library.

The objective of this section is to compare and contrast the alternatives so that a preferred alternative can be selected for presentation in the ROD.

The alternatives are presented here to give a range of potential actions that could be taken to remediate this site. EPA will recommend the cleanup alternative which provides the best balance of the first seven criteria. If an alternative does not meet threshold criteria, EPA does not consider the alternative further. After seeking concurrence from the State of Florida and considering public comment, EPA will determine state and community acceptance and may modify the preferred alternative or certain of its aspects in the ROD.

For the ETC OU1 site, these actions include:

- No action with monitoring.
- Soil excavation, capping/containment of contaminated soils onsite

- Soil excavation, treatment with thermal desorption and dechorination, and onsite disposal.

- Soil excavation, treatment with solid-phase bioremediation, and onsite disposal.

- Soil excavation, treatment with chemical oxidation, and onsite disposal.

- Soil excavation, soil solidification/ stabilization, and onsite disposal.

- Soil excavation, offsite transport and disposal in Subtitle C landfill.

Overall Protection of Human Health and the Environment - All of the alternatives except Alternative 1 (No Action) would provide protection of human health and the environment by eliminating, reducing or controlling risk through removal, treatment, and/or containment with engineering and institutional controls.

Compliance with ARARs - All the alternatives, except Alternative 1, would comply with ARARs. Because Alternative 1 is not protective of human health and the environment and would not comply with ARARs, it will be eliminated from further consideration under the remaining seven criteria.

Long-Term Effectiveness and Permanence Alternatives 2 through 7 all provide long-term effectiveness and permanence because all the contamination above the cleanup goals would be excavated, isolated, and contained on site or treated and disposed onsite or in an offsite landfill.

Reducing Toxicity, Mobility or Volume Through Treatment (T/M/V) - Alternatives 2 and 6 offer a reduction in mobility but not toxicity and volume. Alternatives 3, 4 and 5 are similar in reduction of T/M/V through treatment Alternative 7 relies on removal of contaminated soil from OU1 as the primary method of reducing T/M/V.

Short-Term Effectiveness - Alternatives 2, 3 5, and 6 are similar in short-term effectiveness regarding worker and community considerations required. The biological processes used in Alternative 4 would generally require a longer treatment duration, and Alternative 7 would involve additional considerations associated with transporting material offsite for disposal. Equipment, materials and techniques designed to control dust and run-off would be required for all of the alternatives.

Implementability - All of the alternatives require some level of excavation and rank similarly in implementability. Alternative 7 is the simplest because it only requires excavation and consolidation prior to offsite disposal.

Cost - Alternative 2 ($24.9 million) is the least expensive, followed by Alternative 6 ($51.9 million), Alternative 4 ($158 million), Alternative 5($158.1million), Alternative 3 ($246.8 million) and Alternative 7 ($312.8 million).

State Acceptance - The Florida Department of Environmental Protection has reviewed and supports this Proposed Plan

Community Acceptance - Community acceptance of the Preferred Alternative will be evaluated after the Proposed Plan comment period ends and will be described in the Responsiveness Summary of the ROD for OU1.

CRITERIA FOR EVALUATING REMEDIAL ALTERNATIVES

In selecting a preferred cleanup alternative, EPA uses the following criteria to evaluate those screened in the Feasibility Study (FS). The first two criteria are threshold criteria and must be met for an option to be considered further. The next five are balancing criteria for weighing the merits of those that meet the threshold criteria. The final two criteria are used to modify EPA's proposed plan based on state and community input. All nine criteria are explained in more detail here.

- Overall Protection of Human Health and the Environment -- Eliminates, reduces, or controls health and environmental threats through institutional or engineering controls or treatment.

- Compliance with Applicable or Relevant and Appropriate Requirements (ARARs) -- complies with Federal/State standards and requirements that pertain to the site or a waiver is justified.

- Implementability -- technical feasibility and administrative ease of conducting a remedy, including factors such as availability of services.

- Short-Term Effectiveness -- Length of time to achieve protection and potential impact of implementation.

- Long-Term Effectiveness and Performance -- protection of people and environment after cleanup is complete.

- Reduce Toxicity, Mobility, or Volume by Treatment -- evaluates the alternative's use of treatment to reduce the harmful effects of principal contaminants and their ability to move in the environment.

- Cost -- benefits weighed against cost.

- State Acceptance -- consideration of state's opinion of the preferred alternative(s).

- Community Acceptance -- consideration of public comments on the Proposed Plan.

EPA's Preferred Alternative

Alternative 2 (Capping/Containment) is the Preferred Alternative. This alternative is recommended because it will achieve substantial risk reduction by isolating the source materials constituting ***principal threats*** at OU1. This provides the same protection, but at a lower cost than the other alternatives. The Florida Department of Environmental Protection concurs with the Preferred Alternative.

Capping and containing the contaminated source soils at the ETC site would serve to prevent rainfall infiltration and future leaching into the groundwater. In addition capping would also limit direct contact exposure to contaminated soils under the cap. Varying degrees of capping and containment can be implemented depending on the severity of contaminants in the area. This alternative evaluates a soil/clay cap for implementation. This type of cap would provide a low permeability barrier sufficient to reduce contaminant migration.

This alternative would involve the excavation of contaminated soil in Clarinda Triangle, Rosewood Terrace/Oak Park/ Escambia Arms, PIP and Pearl Street/Herman Avenue areas and placement of the contaminated soil, along with soil from the existing stockpile, back into the existing onsite excavations after they have been expanded as needed and lined with an appropriate geomembrane liner. The cells would then be capped with a soil/clay and geomembrane cap to provide a low permeability barrier sufficient to further reduce contaminant migration. The soil/clay cap would consist of the following layers in ascending order. First, a two-foot thick clay layer would be placed over the contaminated soils and compacted to a permeability of 1 x 10^{-7} cm/s or less. Next, a 60-mil thick geomembrane liner would be installed over the clay layer. These two layers will provide a relatively impermeable layer. The geomembrane liner would be covered by at least 18 inches of native soil and six inches of topsoil. This layer would protect the liner and clay layer from heat and other environmental factors. The topsoil layer of soil/clay cap would be graded to a minimum slope of 3% and a maximum of 5% to promote surface drainage away from the waste cell and reduce infiltration. A vegetative cover of native grass would be established to minimize cap erosion. Surface drainage controls would be constructed around the perimeter of the cap to collect surface runoff.

In an effort to reduce costs, the preferred remedy can also be implemented with a smaller amount of excavation. The reduction in the volume of soils to be excavated can be achieved by foregoing excavation of contaminated surface soils on certain portions of the site located south and west of the current stockpile, and instead, covering those surface soils with an extension of the proposed cap's soil cushion, top soil and vegetative cover layers. Following this alternate approach could potentially reduce the total present worth cost of the preferred remedy by nearly one million dollars. This approach will be evaluated further during remedial design.

Leaving waste onsite in containment systems that protect people and the environment from exposure and prevent contaminant migration as the preferred remedy will do, does not preclude a successful redevelopment of the site. In fact, understanding and accommodating future use in selecting and implementing remedies is an important part of EPA's cleanup responsibility. Modifications to the design can be considered that better reflect the future use of the area, as those plans become better defined. For example, the design and location of waste containment areas may provide for future utility access in anticipating future use. Or, wastes maybe moved to a location other than one that might have otherwise been chosen in order to avoid blocking site access. Because EPA has a responsibility to choose and implement (as far as possible) remedies that are consistent with anticipated use, these examples of accommodating the remedy to anticipated future use can be considered remedial activities because they contribute to the long-term protectiveness of the remedy. However, EPA is prohibited from funding, or requiring others to fund, activities that are considered "enhancements" to the remedy.

As part of site preparation, the area to be used to contain the contaminated soil would be cleared of any debris to make the necessary space required for the disposal cell and cap. In addition, the existing fence would be inspected and upgraded, as necessary, and deed restrictions would be placed on the area to control the future use of the property. State and local agencies would be responsible for the implementation and enforcement of these restrictions. Monitoring would be required to assess the effectiveness of the remedial action. An appropriate groundwater monitoring program will be designed for at least 30 years of monitoring of upgradient and downgradient aquifers surrounding the capped area. Periodic maintenance of the cap and surface drainage system also would be required, and EPA would perform a statutory review not less than every five years after the remedy construction starts to ensure the remedy remains protective.

This alternative eliminates the risks associated with both actual and potential exposure pathways. Since the soil/clay and geomembrane cap would eliminate exposure to contaminants, risk to human health is greatly reduced. The cap and subsurface liner also would limit the mobility of hazardous constituents by reducing the forces that drive the contaminants, such as the infiltration of rainwater and groundwater in the capped area.

With the use of subsurface liners, placement of contaminated soils above the anticipated groundwater level, and appropriate cap design, contaminant impact to the groundwater aquifer can be eliminated. Risk-based remedial goals would be met above the cap, since the contaminated material is being isolated.

Based on information currently available, the EPA believes the Preferred Alternative meets the threshold criteria and provides the best balance of tradeoffs among the other alternatives with respect to the balancing and modifying criteria. The EPA expects the Preferred Alternative to satisfy the following statutory requirements of CERCLA 121(b): (1) be protective of human health and the environment; (2) comply with ARARs (or justify a waiver); (3) be cost-effective; (4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and (5) satisfy the preference for treatment as a principal element to the extent practical.

GLOSSARY

***Administrative Record*:** Documents and data used in selecting cleanup remedies at NPL sites. The record is placed in the information repository to allow public access.

Aquifer: An underground geological formation, or group of formations containing water. Sources of groundwater for wells or springs.

Aquitard: A geological formation that may contain groundwater but is not capable of transmitting significant quantities of it, under normal hydraulic gradients. May function as a confining bed.

ARARs: Applicable or Relevant and Appropriate Requirements. Refers to Federal and State requirements a selected remedy must attain which vary from site to site.

Background: Location where samples, typically called background samples, are collected and used to indicate the average presence of a compound in the environment.

CERCLA: The Comprehensive Environmental Response, Compensation, and Liability Act, otherwise known as the Superfund Law.

Contaminant Plume: A visible or measurable discharge of a contaminant from a given point of origin.

Extraction (Recovery) Well: A discharge well network used to remove groundwater or air

Groundwater: The supply of freshwater found beneath the earth's surface usually in aquifers which supply wells and springs.

Information Repository: Data and documents related to ***Superfund*** site placed near a site for the public.

Monitoring: The periodic or continuous surveillance or testing to determine the level of pollutants in various media or in numerous plants and animals.

Monitoring Well: A well drilled at or near a hazardous waste management facility or a superfund site to collect groundwater samples for the purpose of physical, chemical or biological analysis to determine the amounts, types and distribution of contaminants in the groundwater beneath the site.

***National Priorities List (NPL)*:** EPA's list of priority hazardous waste sites that are eligible to receive federal money for response under Superfund.

Operable Unit (OU): Term for each of a number of separate activities undertaken as part of a Superfund site cleanup.

Operation and Maintenance (O&M): Activities conducted at NPL sites after cleanup remedies have been constructed to ensure their proper functioning.

Principal Threat Waste: Those source materials considered to be highly toxic or highly mobile which generally cannot be contained in a reliable manner or would present significant risks to human health and the environment, should exposure occur.

Resource Conservation and Recovery Act (RCRA): Federal law governing solid and hazardous waste from its creation to its final disposition, including transportation, storage, and treatment. Subtitle D regulates solid (non-hazardous) landfills, and Subtitle C regulates hazardous landfills.

Record of Decision (ROD): A public document that explains which cleanup alternative will be used at an NPL site and the reasons for selecting the alternative.

Remedial Investigation/Feasibility Study (RI/FS): Two distinct but related studies, normally conducted together, intended to define the nature and extent of contamination at a site and to evaluate appropriate, site-specific remedies.

Superfund: Common name used for the CERCLA and for the Trust Fund which funds the program. The Superfund program was established to oversee the cleanup of hazardous waste sites.

MAILING LIST ADDITIONS/CORRECTIONS

If you would like your name and address placed on the mailing list for the Escambia Treating Company Site, please complete this form and return to L'Tonya Spencer, EPA, 61 Forsyth Street SW, Atlanta, GA 30303.

NAME: _____

ADDRESS: _____

TELEPHONE: _____ AFFILIATION _____

USE THIS SPACE TO WRITE YOUR COMMENTS

Your input on the Proposed Plan for the Escambia Treating Company ***Superfund*** Site OU1 is important to EPA. Please use the space below to write your comments, then fold and mail. Additional comments may be included with this form.

ESCAMBIA TREATING COMPANY
SUPERFUND SITE

PUBLIC COMMENT SHEET

Fold on dashed lines, staple, stamp and mail

Place Stamp Here

Name _____
Address _____
City _____ **State** ___**Zip** ____

L'Tonya Spencer, Community Relations
Superfund Remedial & Technical Services Branch
U. S. EPA, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303

United States Environmental Protection Agency, Region 4

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